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Economic and Revenue Forecast

Fiscal Year 2010 Second Quarter

November 2009



Caring for your natural resources ... now and forever

Acknowledgements

The Washington State Department of Natural Resources' (DNR) *Economic and Revenue Forecast* is a collaborative effort. It is the product of information provided by private individuals and organizations, as well as DNR staff. Without their contributions, the quality of the Forecast would be greatly diminished.

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Prepared by
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Lead Economist
DNR Office of Budget and Economics



Table of Contents

SectionPa	ge
Preface	5
ntroduction and Forecast Highlights	7
Part 1. Macroeconomic Conditions	9
U.S. economy	9
World economy14	4
Part 2. Log and Lumber Industry Factors1	5
U.S. housing market	5
Lumber, log, and stumpage prices2	1
Part 3. DNR's Revenue Forecast29	5
Timber revenues	5
Upland lease revenues	4
Aquatic revenues	6
Total revenues from all sources	8
Some caveats	9
Distribution of revenues40	0
Revenue forecast tables4	1

Acronyms and abbreviations

Bbf Billion Board Feet CDN\$ Canadian dollar

CPI Consumer Price Index CV Clear Vision Associates

Cwt Hundred pounds CY Calendar Year

DNR Washington State Department of Natural Resources

FDA Forest Development Account Fed U.S. Federal Reserve Board FOMC Federal Open Market Committee

FY Fiscal Year

GDP Gross Domestic Product
IMF International Monetary Fund
ISM Institute for Supply Management

mbf Thousand board feet mmbf Million board feet

NAFTA North American Free Trade Agreement

OPEC Organization of Petroleum Exporting Nations

PPI Producer Price Index

RCW Revised Code of Washington REIT Real-Estate Investment Trust

RISI Resource Information Systems, Inc.
RMCA Resource Management Cost Account

SAAR Seasonally Adjusted Annual Rate

TIMO Timberland Investment Management Organization

US\$ U.S. dollar

WWPA Western Wood Products Association

WTO World Trade Organization

Y Japanese yen



Preface

This *Economic and Revenue Forecast* projects revenues from Washington State trust lands managed by the Washington State Department of Natural Resources (DNR). These revenues are distributed to management funds and beneficiaries as directed by statute. The Forecast information is organized by source, fund, and fiscal year.

DNR revises its Forecast quarterly to provide updated information for trust beneficiaries and department budgeting purposes. (See the Forecast Calendar at the end of this section for release dates.) We strive to produce the most accurate and objective forecast possible, based on the current policy direction of the department and available information. Actual revenues will depend on the department's future policy decisions and changes in market conditions beyond the department's control.

This Forecast covers fiscal years 2010 through 2015. Fiscal years for Washington State government begin on July 1 and end on June 30. For example, the current fiscal year, FY 2010, runs from July 1, 2009, through June 30, 2010.

The baseline date (the point that designates the transition from 'actuals' to forecast) for this Forecast is October 31, 2009. The forecast beyond that date is based on the most up-to-date market and economic information available at the time of publication.

Unless otherwise indicated, values are expressed in nominal terms without adjustment for inflation. Therefore, interpreting trends in the Forecast requires care to separate inflationary changes in the value of money over time from changes attributable to other economic influences.

Each DNR Forecast builds on the previous one, emphasizing ongoing changes. Before preparing each Forecast, international and national macroeconomic conditions and the demand and supply for forest products are re-evaluated. The impact on projected revenues from DNR-managed trust lands is then evaluated, given the current economic conditions and outlook.

DNR Forecasts provide information that is used in the *Washington Economic and Revenue Forecast* issued by the Washington State Economic and Revenue Forecast Council. The release dates for DNR's Forecasts are determined by the state's Forecast schedule as prescribed by RCW 82.33.020. The table below shows the anticipated schedule for DNR's future *Economic and Revenue Forecasts*.

Economic Forecast Calendar

Forecast Title	Baseline Date	Draft Revenue Release Date	Final Data and Publication Date (approximately)
February 2010	End Q2, FY 2010	Feb. 5, 2010	Feb. 26, 2010
June 2010	End Q3, FY 2010	June 8, 2010	June 30, 2010
September 2010	End Q4, FY 2010	Sept. 10, 2010	Sept. 30, 2010
November 2010	End Q1, FY 2010	Nov. 6, 2010	Nov. 30, 2010

Introduction and Forecast Highlights

Market Changes Since the September Forecast. Economic indicators continued to improve since the September Forecast albeit at a very slow pace and from a very low level. Over the last two months, total housing starts are down by 1 percent from the previous two months, and down by 30 percent from the same period last year. Single family starts for the two-month period were unchanged from the previous two months, but are down by 15 percent from last year.

Timber Sales Prices. Composite DNR stumpage prices (based on composite log prices) reached a low in April of just \$130/mbf. When we did the September forecast, stumpage prices had increased to \$165/mbf. In the last two months it has increased an additional 12 percent or \$20/mbf to \$185/mbf. That's a big increase from the dark days of last spring. Still, this is a 27 percent decrease from the same period last year.

Year-to-date FY2010 (through October), the average price for DNR timber sales was \$193/mbf. This is higher than we forecast in September, due in part to the fact that the department has withheld a number of low-valued sales from the market. We now forecast prices to average \$196/mbf for the full year—up \$31/mbf (or 19 percent) from that forecast in September. We also increased the forecast sales prices in FY2011 by \$5/mbf (or 3 percent) to \$185/mbf.

Sales Volume. There are no changes to DNR's planned sales level. In fact, our sales program is off to a very good start this fiscal year. Through October, the department has sold 249 mmbf, one-third of the target 744 mmbf for FY2010. In addition, the department plans to offer 123 mmbf over the next two months. If all the offered volume sells (which we expect), the total sold during the first half of the year will equal half of DNR's target volume for the year.

Forecast Removal Volume and Prices. Based on our latest purchasers survey (conducted in early October), purchasers have accelerated their planned harvest from the volume under contract into FY2010. Most of that increase is being brought forward from FY2012 with no change in the forecast harvest for FY2011. Because of the increase in forecast sales prices described above, removal prices during the current biennium are up by \$6/mbf or 2.8 percent. These positive impacts were partially offset by \$6.8 million in actual and anticipated timber defaults, and other inventory adjustments.

Bottom Line for Timber Revenues. As a result of the increase in forecast removal volume and prices, forecast timber revenues are up by \$19.8 million for the biennium by 8.2 percent.

Lease and Other Non-timber Revenues. The department held two very good consecutive geoduck auctions averaging almost \$9/lb., well over twice the forecast level. Geoduck prices are notoriously volatile, so we have not increased our forecast prices. Based on the year-to-date sales, forecast Aquatic revenues are up by \$2.8 million for the current biennium. This was partially offset by a reduction of \$500,000 in forecast oil and gas exploratory lease revenue.

Part 1. Macroeconomic Conditions

U.S. real gross domestic product (GDP) expanded at an annual rate of 2.8 percent in the third quarter of CY 2009, ending the contraction for the last four quarters. The 2.8 percent growth of last quarter is unsustainable as it was boosted by government spending, rebuilding of inventories and increased net exports. Going forward we expect growth will be sluggish but remain positive, averaging 2 percent next year. It will be 2011 before the U.S. economy begins to grow at its potential of 3 percent. The silver lining around a deep recession and a slow recovery is that the economy will have plenty of excess capacity to grow without threatening inflation, so there will be no reason for the Fed to increase interest rates until the economy gets going again.

China and India continue to be the only real bright spots in world economic growth but even their real GDP has slowed to just 6.2 percent for all of 2009. Although this is significantly less than half of the 10.6 percent rate in 2007, growth in China and India has not gone negative, and both nations are already on their way to recovery.

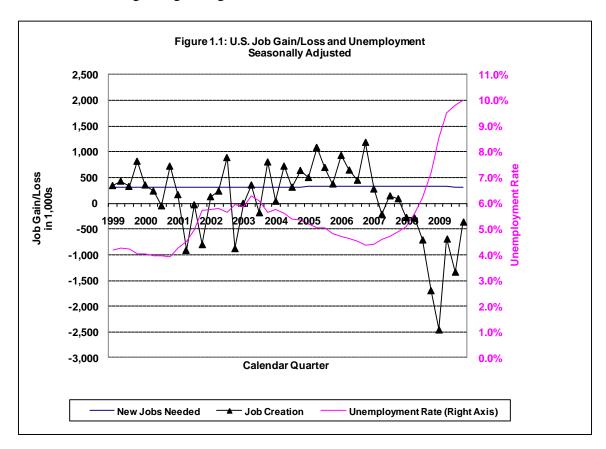
U.S. economy

Employment. During September and October, the level of U.S. job losses accelerated as the nation lost an additional 1.4 million jobs and the national unemployment rate rose to 10.2 percent. In November, there was a net gain of 227,000 jobs and the unemployment rate fell to an even 10 percent in part because the workforce continued to shrink. Since May 2008, the U.S. economy lost 7.8 million jobs and the unemployment rate increased from 5.0 percent to 10.2 percent, the highest level since 1982, 27 years ago. (See **Figure 1.1** for detail.)

Despite the good numbers in November, this sluggish recovery will mean few net new jobs will be added to the economy over the next year and a half. In normal times, the U.S. economy needs to create 110,000 net new jobs each month just to keep up with average growth in the labor force and prevent the unemployment rate from increasing.

But these are not normal times: the workforce has actually shrunk since the recession began. An estimated two million people quit looking for jobs. Instead they are staying in (or returning) to school, retiring, or simply waiting at home until better times return. If they hadn't given up, the unemployment rate would already be over 11.5 percent. The unemployment rate could hover around 10 percent for two years or more as firms try to

do more with the same number of workers for as long as possible but, eventually, the labor force will begin to grow again.



In response to the double digit unemployment, there's talk of a 'jobs bill' in Washington D.C., to supplement or replace the stimulus package. At the same time, there is growing concern over the increasing deficit and health care bill—all of which will make a meaningful jobs bill politically difficult.

Inflation. The overall Consumer Price Index (CPI) has been running at or near zero for the last 10 months (on a 12 month basis) because of falling energy and food prices (See **Figure 2.1**). The CPI has turned positive but just barely, increasing at an annual rate of just 1.5 percent since July. It's virtually unchanged for the 12 months ending in October. The core CPI (which excludes volatile food and energy prices) increased by an annual 2.5 percent over the three-month period ending in October and 1.7 percent over October of last year.

Despite increasing demand for energy in China and India as they recover, we aren't expecting crude oil prices to increase significantly for a year or two as world demand remains relatively mild. Demand then could increase rapidly, pushing oil prices up over \$100/barrel -- about double from last year's prices.

We expect inflation to remain very low (1 to 2 percent) over the next couple years and low (under 2.5 percent) throughout the forecast period. Inflation will remain low because of high unemployment and ample capacity to meet expected increase in demand. The risk

to our forecast is that commodity prices could increase more than we expect as world demand increases and the U.S. dollar weakens.

Interest Rates. Given the low level of inflation and the high level of unemployment, we expect the Fed to hold the federal funds rate between 0 percent and 0.25 percent until late next year—perhaps even longer. The Fed can do this easily by manipulating the Federal Funds Rate.

The Fed also wants to keep longer term rates low—including mortgage rates in the 5 to 5.25 percent range. Keeping longer term rates down won't be so easy. The Fed needs to sell trillions of dollars in Treasuries to fund soaring budget deficits. They also have to be concerned about the value of the U.S. dollar, which is inversely related to U.S. interest rates. Since March, the yield on the 10-year Treasury jumped from 2.5 percent to 3.3 percent, an increase of 32 percent! To keep foreign buyers interested, yields are expected to increase to over 4 percent early next year. As the global economic recovery and budget deficit concerns grow, the U.S. dollar will likely continue to weaken. The Fed will struggle to hold 10-year bond rates below 4 percent, which will push mortgage rates up towards 6 percent and even higher.

Mortgage rates will remain low by historical standards (mortgage rates were 6.5 percent last year at this time). Hopefully, higher interest rates won't prematurely choke off the recovery of the economy in general and housing starts in particular.

U.S. Consumption. The holiday season got off to a good start, primarily because of good weather, but we still expect sales to be lackluster at best. High unemployment will be the dominant factor depressing U.S. household consumption over the next year and a half. Current consumption has been temporarily boosted from the fiscal stimulus packages which have resulted in the 2.8 percent growth in the third quarter, but overall 2009 spending will be down from 2008. Programs like 'cash for clunkers' are temporary. Over the long term, consumers face daunting issues from their own balance sheets. Restoring wealth that was lost during this recession and frugal household budgeting will become much more prevalent. We expect consumption to improve over the forecast period but consumers will not rush back to the malls like they did after previous recessions.

Trade and the U.S. Dollar. The U.S. trade deficit is on course for its sharpest contraction in 18 years, falling by almost half over last year. Relative to the size of the U.S. economy, it will hit its lowest level since 1998, falling to 2.6 percent of gross domestic product from 4.8 percent last year. Net exports, which were a drag on the U.S. economy, have become positive. Going forward we expect the U.S. trade gap will continue to narrow as U.S. consumption fades relative to world consumption. This will be facilitated by a weaker U.S. dollar, which will help boost U.S. exports and limit imports.

Figure 1.2 shows the trade-weighted U.S. dollar index (referred to in this section as the dollar) since 1973 in both nominal and inflation adjusted terms. It also shows the relative inflation between the U.S. and our trading partners. During times when U.S. inflation was low, relative to our trading partners, the nominal dollar increased relative to the real dollar. This was the case during most of the last quarter of the last century (CY 1975-

1999. The one exception was the late 1970s and early 1980s when the U.S. experienced very high inflation. Over the historic period, the nominal dollar trended up because U.S. inflation was generally less than that of our trading partners, while the real dollar shows no upward or downward trend. The index is set so that the average of the real index is 100. So, the dollar is weak when the real dollar index is less than 100 and strong when the index is above 100.

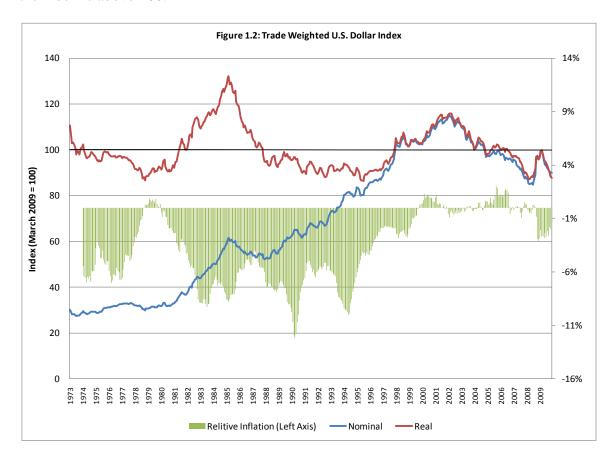


Figure 1.3 shows the trade-weighted U.S. dollar index for this decade. During this period, the level of inflation between the U.S. and its trading partners has been more or less balanced and both the real (adjusted for inflation) and nominal (not adjusted for inflation) dollar have moved more or less in tandem. The U.S. dollar started the decade at 102, just 2 percent above the neutral point of 100. It rose steadily during the early recession years and peaked at 115 during April of 2002; this was the highest the real dollar had been since the mid-80s when it reached a level of 130.

During the next six years, the dollar fell more or less steadily. Its fall was aided during the last three years by China, which allowed its currency to appreciate 20 percent against the dollar. In March of 2008, the real dollar hit a low of 87, the weakest the dollar had been since 1995 when it hit its record low of 86.5. The flight to safety during the financial crisis resulted in the dollar returning to neutral in March of this year. Since then, as the economies of our trading partners have improved relative to ours and relative calm has returned to financial markets, the dollar has again weakened to 87. In the meantime, China has held the Yuan steady against the dollar. During 2009, the U.S. inflation rate has been lower than our trading partners. As a result, the real dollar fell more than the

nominal dollar. While the nominal dollar is currently well above its low in 2008, the real dollar is almost even with its 2008 low.



Going forward through the forecast period, we expect the dollar will continue to fall as the economies of our trading partners grow faster than the U.S. economy. We also expect the interest rates of our trading partners to increase more than those in the United States, which will put added downward pressure on the U.S. dollar. In addition, if and when China allows its currencies to float against the U.S. dollar, the dollar is likely to fall even further.

U.S. Real Gross Domestic Product (GDP). Real GDP growth in the third quarter was revised down to a 2.8 percent annualized rate from a previously reported 3.5 percent expansion. Despite mixed signals, we expect U.S. growth to remain positive in the coming quarters, but the rate of growth will be below potential (now at 2.75 percent) at less than 2.0 percent during the fourth quarter and for all of CY 2010.

Real growth in CY 2010 will depend on continued high levels of government spending, continued easy money policy by the Fed, continued growth of our trade partners, and net U.S. exports. It's also still possible we could see a significant setback, but at this point we expect real U.S. GDP to return to its potential in 2011. By then a whole new set of problems will begin to emerge related to the U.S. deficit, the U.S. dollar, and the need to reduce government spending and debt. We expect interest rates to increase in response, acting as a brake on the U.S. economy in general.

World economy

The good news is that the worst is over for the world economy. Led by Asia, the world economy has started to grow again. Most major economies have emerged from recession and are in the recovery stage. The bad news is that by most economic predictions the recovery will be slow and difficult. We anticipate a slow recovery in developed economies and a correspondingly slow recovery in many developing economies. Despite low interest rates, financial conditions remain tight as banks continue to limit loans to reduce their risk exposure.

The International Monetary Fund (IMF) slightly upped its forecast of world economic growth during 2010 to about 3 percent. For all of 2009, the world economy contracted by 1 percent, better than the IMF's forecast of a 1.4 percent contraction. The 3.4 percent contraction of advanced economies was partially offset by growth of 1.7 percent in emerging and developing countries. Most of the improvement expected in 2010 is in the developed world.

Part 2. Log and Lumber Industry Factors

This chapter focuses on the specific factors that affect the stumpage values and overall timber revenues received by the Washington State Department of Natural Resources (DNR). Stumpage prices reflect demand for lumber and other wood products, timber supply, and regional and local milling capacity. The demand for lumber and wood products is directly related to the demand for housing and other end-use markets.

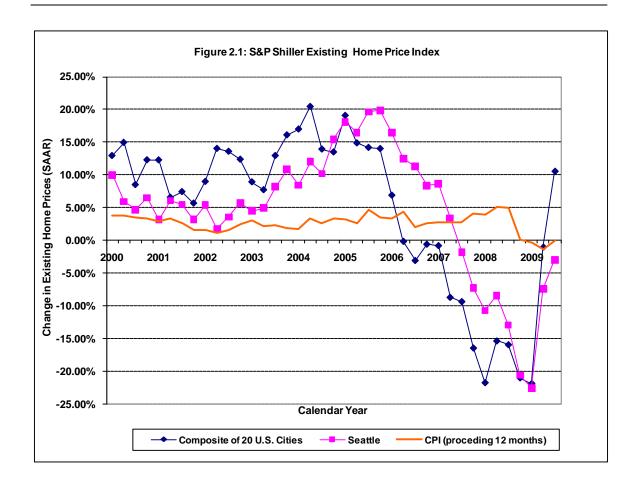
U.S. housing market

Housing Prices. The seasonally adjusted Case-Shiller² index of existing home prices for the 20 largest metropolitan areas in the U.S. increased by 3.3 percent during the last four months ending in September—that's an annual rate of 10 percent. (See **Figure 2.1**) On a seasonally adjusted basis, 17 cities saw increases, while only three cities (Charlotte, Seattle, and Las Vegas) continued to see existing home prices fall.

Still, not all the recent news on housing prices is good: the rate of increase slowed to just 3 percent SAAR (Seasonally Adjusted Annual Rate) in September from 14 percent in July and August. In nominal terms, the 20-city index is back to where it was in September 2003. In real terms, the index is back to where it was in September 2001. Existing home prices are below replacement prices in most markets, which must change before we see significant improvement in new home sales, housing starts and the demand for lumber and other forest products. Still, the latest news on existing home prices is a step to recovery.

¹ Although DNR timber sales are a significant source of timber in the Pacific Northwest, volumes generally are not sufficiently large enough to affect prices.

² The S&P Case-Shiller price index shown here represents about half the total homes in the U.S. The index is heavily skewed towards metropolitan areas where price changes tend to be greater than in less urbanized areas. The S&P Shiller price index is down by almost 32 percent from its peak, while the Federal Reserve puts the reduction in the total value of the U.S. homes at about 18 percent. Using the Fed numbers, the average equity of the Americans in their homes has fallen from almost 60 percent early in the decade to just over 40 percent today.



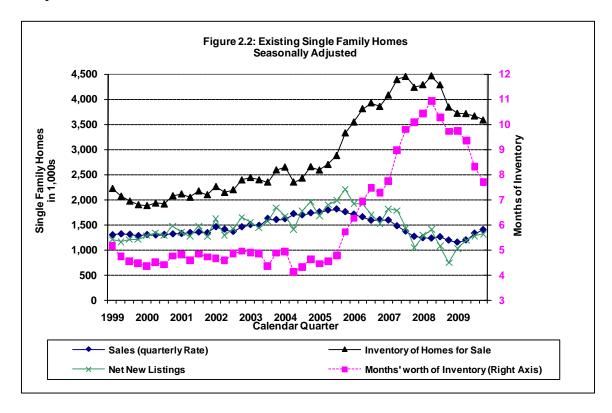
Existing Home Sales. Over the last year, the market for existing homes has begun to recover as existing home sales increased from 4.9 million SAAR last October to 6.1 million this October—that's an increase of 24 percent. Perhaps more remarkable is that 6.1 million sales is higher than the rate of existing home sales in the pre-bubble period of 1999-2003. (See **Figure 2.2**.)

The average rate of existing home sales over the last 10 years is "just" 4.8 million. Today's strong existing home sales are due primarily to two factors: 1) an influx of buyers looking to take advantage of an \$8,000 tax credit that the Obama administration made available for qualified first-time home buyers, and 2) buyers looking to take advantage of what may prove to be the lowest prices in a generation on existing homes.

Sales of foreclosed homes likely will reach 1.9 million in 2010, up from about 1.7 million this year. That compares with a typical tally of about 500,000 foreclosure sales per year before 2007 when the housing bubble burst. If you back out the extra foreclosure sales of about 1 million, that brings the current sales down from 6.1 million to 5.1 million, still over the pre-bubble average. It'll be 2011 before the number of foreclosures sales falls as the economy improves, receding to about 1.1 million—that still means an extra 500,000 homes on the market at very low prices.

Over the last year and a half, the inventory of existing homes has fallen by almost one million homes down to 3.6 million. A large part of that decline is simply homeowners

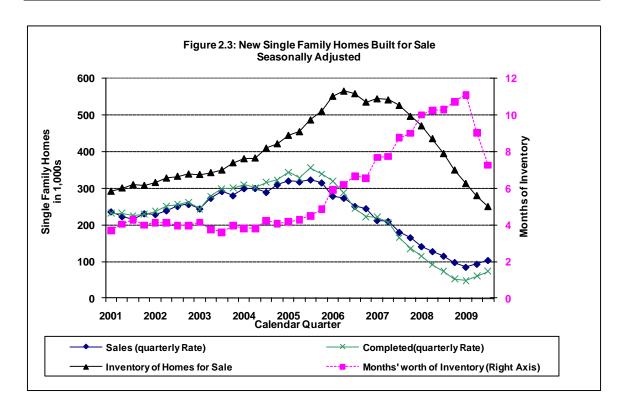
taking or holding their homes off the market and waiting for the market to recover. Even so, at its current level of 3.6 million, the inventory of existing homes for sale remains well above the pre-bubble average of 2.1 million. And remember, this does not include the 'shadow inventory' of homes that are likely to come back on the market as demand and prices increase.



Although the months' worth of inventory at the current sales rate has fallen from almost 11 months to less than 8 months, that's still well above the normal 4.5 to 5 months worth of inventory prior to the bubble. We project that it will be late in CY2010 to early 2011 before the months' worth of inventory falls to normal levels.

New Home Sales. After slipping in September, new home sales jumped in October reaching the highest level in over a year. New home sales, like existing home sales are being helped by the federal government's first-time home buyers incentive and by builders' efforts to slash prices and home sizes to make their product competitive with existing homes.

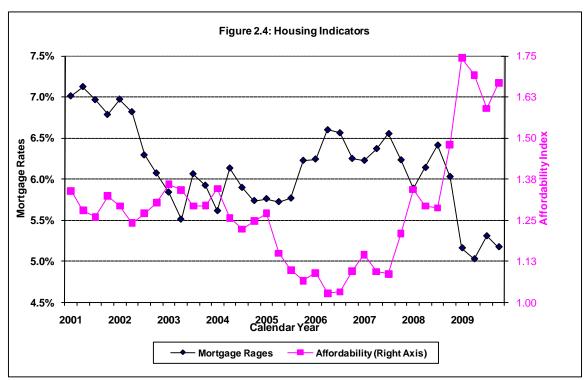
The improvement in new home sales is clearly a welcome development, compared to existing home sales which have merely recovered to their pre-bubble level. New home sales are just 45 percent of their pre-bubble level of 230,000 per quarter. We believe that new home sales will remain depressed because of the abundant supply of inexpensive existing homes on the market. This abundance will weigh on the market until well into 2012 when the oversupply of existing homes is worked off the market and existing home prices increase enough to make new homes competitive.



Despite the fact that the number of completions (net new listings) was up as well, there were still 30 percent fewer homes completed than sold, so the inventory of new homes continued to fall. The inventory of new homes for sale is now below historic normal levels but the inventory relative to the current sales rates remains elevated (now at 7.3 months while normal is 4 months worth). See **Figure 2.3** for detail.

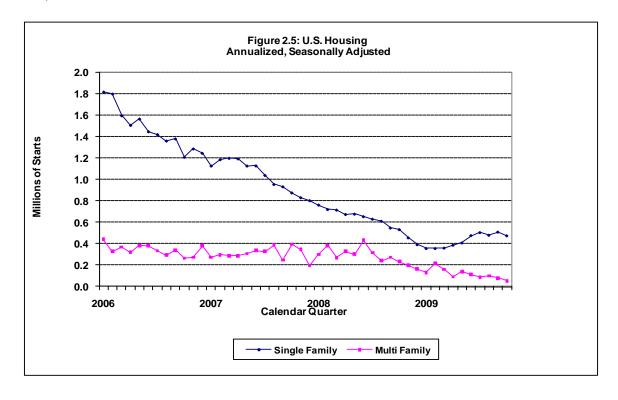
Since single family home starts, which take six months to complete, remain low (see **Figure 2.6**), the inventory should continue to fall for the next six to nine months as well. The months' worth of inventory will continue to fall quickly over the next year and should reach normal levels by the middle of the year.

Affordability. Mortgage rates fell in October to 5.10 percent, down from 5.33 percent from August. The medium price of an existing single family home also fell to \$173,100 from \$177,100. The combination brought the income needed to qualify for that medium existing single family home down from \$37,872 to \$36,096, or by 4.6 percent. The medium family income fell from \$60,415 to \$60,161 which was only a 0.4 percent decline. The net result is that existing homes are becoming more affordable again with the index increasing to 1.662 in October. (See **Figure 2.4** for detail).



The **Affordability Index** is the ratio of median family income and the income required to qualify for the median-priced existing single-family home. In October 2009 the affordability index was \$60,161/\$36,096 or 1.662.

Housing Starts. Despite several months of 'good news' from housing markets, housing starts still averaged just 589,000 units SAAR in the third quarter, a 9 percent increase from the second quarter. (See **Figure 2.6** for detail.) October came in at a disappointing 529,000 SAAR.

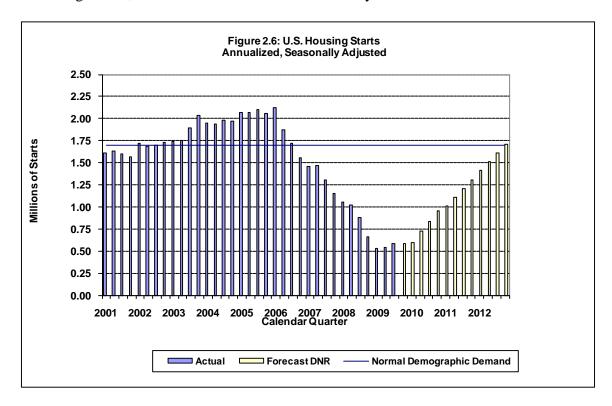


Single family housing starts were at a low point of just 357,000 units SAAR in January. The levels increased 38 percent in six months, reaching 478,000 in June; since then they have remained more or less flat, averaging 490,000 through October. Over that same six month period, multifamily starts have disappointed—falling 52 percent from 112,000 in June to just 53,000 in October. (See **figures 2.5 & 2.6** for detail.)

The sharp fall in multifamily starts is due to low rents and high vacancy rates and difficulty in getting financing – none of which are good signs for single family housing starts going forward. We now expect little growth in housing starts over the next six months, but they may linger at current lows for longer than we forecast.

We have reduced our housing starts forecast over the entire forecast period. We now expect the bottom to be flat and last well into CY2010. Starts should then increase more gradually than our previous forecast, and not reach the normal demographic demand until late in 2012, which is almost two years later than our previous forecast.

The lower housing starts are what we think is needed to allow for the absorption of the oversupply of existing homes described above. RISI's forecast shows housing starts increasing to 880,000 in 2010 and 1.26 million units by 2011.



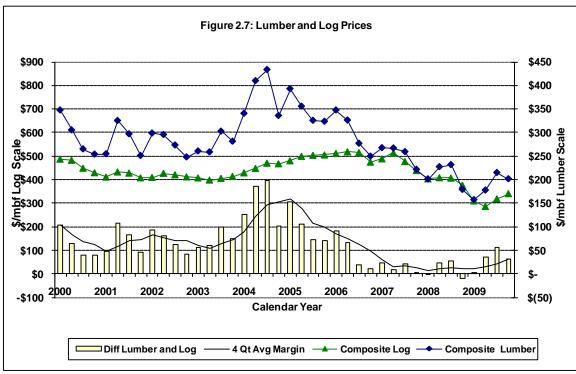
Lumber, logs, and stumpage prices

Through the first nine months of this year, coastal lumber production is down 21 percent from the same period last year compared to a loss of almost 25 percent in total North American lumber production³. As a consequence, the coastal market's share of total North American production grew from 17 percent to 18 percent.

A total of 26.6 billion board feet (bbf) of lumber was produced through September, compared to 41.3 bbf through the same period a year ago.

During the third quarter, coastal mills produced 1.7 bbf of lumber, a drop of 13% from last year's third quarter, when 2.0 bbf were produced. For the rest of North America, production in the third quarter was down by 21 percent from the same period last year to 8.9 billion compared to 11.3 billion during the same period last year. Capacity utilization in the west has fallen to just 50 percent.

Lumber and Log Prices. West Coast composite dry lumber prices hit a high of \$218/mbf in August, since then they have fallen by \$17/mbf or 8 percent to \$201/mbf in Oct. Over the same period (since August) that lumber prices fell \$17, log prices have increased by \$28/mbf (Scribner log scale) or 9 percent.



Note: The volume of lumber (measured in mbf lumber tally) actually milled from logs normally exceeds the Scribner volume measurement. The graph above uses different axes to adjust for the difference in the two measurement scales. Here the relationship is assumed to be 2:1. "Margin" is defined as the average price difference between lumber and logs after an adjustment for the two different measurement scales.

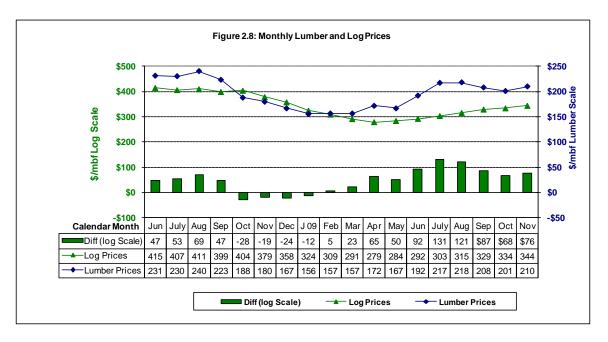
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³ Coastal region is western Washington, western Oregon, and western California.

As a result of lower lumber prices and higher log prices, mill conversion margins are once again being squeezed; our index margins now are at \$58/mbf log scale (\$29/mbf lumber scale). That's less than half of what it was back in July, and is way less than the 'normal' markup of \$130/mbf log scale (\$65/mbf lumber scale). (See **Figures 2.7 and 2.8** for detail.)

A number of factors helped strengthen lumber prices. They include the strong Canadian dollar and a weak U.S. dollar. This movement in currencies helped boost prices in the United States despite very weak demand. At the same time, it increased net export demand for North American lumber. Seasonal shutdowns are another factor the stronger lumber prices because once a mill is shut down, it takes higher prices to entice it to reopen, especially in the winter months.

We reported in the September Forecast that the situation faced by some mills is not as attractive as shown in **Figure 2.7** since the prices being paid for timber under contract with DNR were higher than log prices. That is no longer the case. The average delivered log value of the timber under contract with DNR is now \$352/mbf and the average delivered log value of timber currently being harvested is \$345/mbf, only slightly higher than the current log prices of \$344/mbf in November.

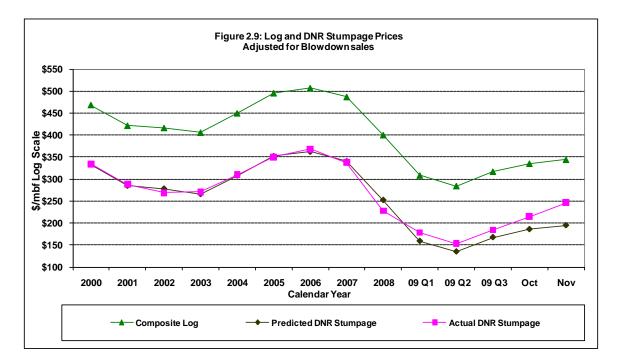


Log and DNR Stumpage Prices. Figure 2.9 shows average annual log prices and the predicted DNR stumpage prices given those log prices vs. actual stumpage prices adjusted for blowdown⁴. In CY 2008, DNR stumpage prices were \$25/mbf less than predicted by the econometric model. This difference was probably due to a number of

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⁴ DNR actual prices calendar year 2008 through August and the third quarter are adjusted for blowdown sales (timber damaged in a December 2007 storm in southwestern Washington). The model predicts an average harvest and delivery cost of \$155/mbf in FY 08.

factors but it is most likely that buyers' fatigue (see March 2009 forecast for detail) from disappointing forest product markets and low profits was the main factor.



During the first 11 months of CY 2009, the actual prices have been \$22/mbf or 14 percent more than those forecast by log prices. This may be due to a number of factors – one of which is the quality of timber being offered by DNR. Because of the generally low prices, DNR has offered fewer low-valued sales than usual. This has increased our average price above what they otherwise would be. Another factor is the increase in contract harvest sales which tend to bring higher prices than stumpage sales.⁵

Given current log prices of \$344/mbf the model is projecting stumpage prices of \$195/mbf up from \$165/mbf or 18 percent from when we wrote the September forecast.

⁵ In "Contract Harvest Sale" the department contracts for the harvest and delivery of logs and sells individual sorts of logs delivered to the purchasers' predesignated locations. In a "Stumpage Sale" the department sells standing timber and the purchaser is responsible for the harvest and delivery of the logs.

November 2009 Economic and Revenue Forecast – Washington State Department of Natural Resources 24 of 43

Part 3. DNR's Revenue Forecast

This Revenue Forecast includes revenues from timber sales, upland leases, and aquatic leases. It also forecasts revenues to individual funds. Some caveats about the uncertainty of revenue forecasting are summarized at the end of this section.

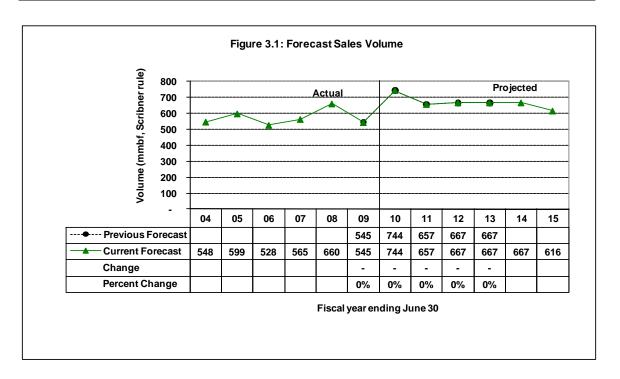
Timber revenues

The Washington State Department of Natural Resources (DNR) sells timber through contracts. The department determines the total volume to be offered for sale each month and the minimum bid for each sale. The sale is awarded to the highest bidder and the average sales price (\$/mbf) is set at the time of auction. DNR collects a 10 percent initial deposit at the time of sale and holds it until the sale is completed. Revenues are collected at the time of harvest (removal). The initial deposit is credited as the last 10 percent harvested. The purchaser determines the actual time of harvest within the terms of the contract. Contracts sold during the last 12 months varied in duration from less than three months to three and a half years, with an average (weighted by volume) of 22 months. As a result, timber revenues to beneficiaries and DNR management funds lag current market conditions.

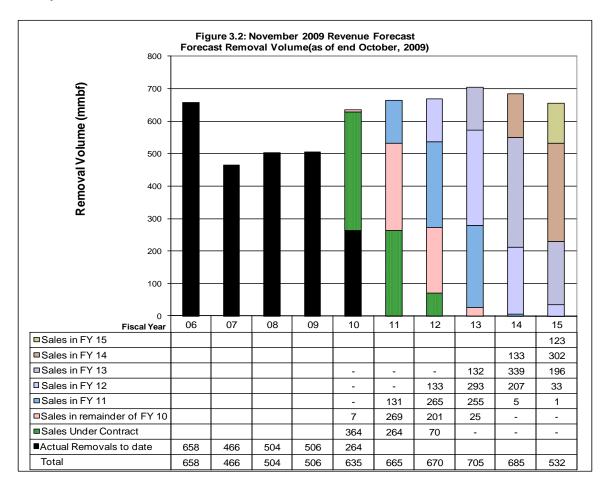
Timber that is sold but not yet harvested is referred to as 'volume under contract' or 'inventory.' Timber is added to the inventory when it is sold and removed from the inventory when it is harvested.

Timber Sales Volume. During the first five months of FY 2010 the department had better-than-forecast results from our timber sales⁶. In the current fiscal year to date, DNR sold 315 mmbf or 42 percent of the volume scheduled to be sold this year. We have not changed our planned sales volumes from the September Forecast. (See **Figure 3.1** for detail).

⁶ Department sales results are available on the DNR at: http://www.dnr.wa.gov/BusinessPermits/Topics/TimberSaleAuction/Pages/psl ts auction results.aspx



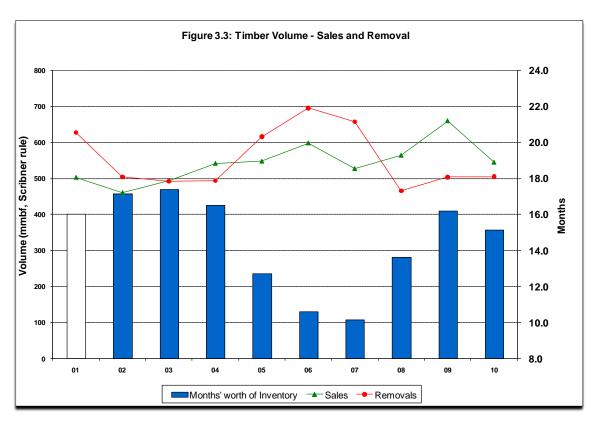
Timber Removal Volume. For each Forecast, we survey purchasers to determine their planned timing of removals from the volume they have under contract at the time of the survey.



The latest survey, conducted in the first week of October, indicates that purchasers increased their harvest plans for FY 2010. The department currently has 699 mmbf valued at \$141.5 million under contract. Purchasers plan to harvest 364 mmbf, 52 percent of the volume under contract this fiscal year (FY 2010), 264 mmbf (38 percent) next fiscal year, and the remaining 70 mmbf (10 percent) next biennium (2011-13). (See **Figure 3.2** for detail.)

Through October (the first four months of FY 2010), purchasers removed 264 mmbf. We estimate that removals during the remaining months of FY 2010 from new sales in FY 2010 will be 7 mmbf.

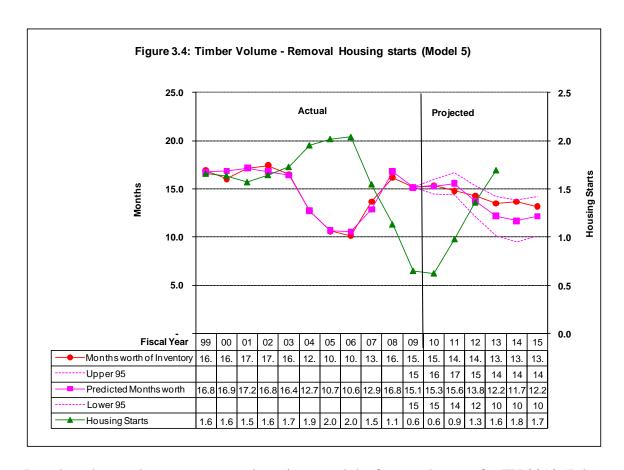
Removals in FY 2010 and beyond. In 2004, purchasers reduced the volume under contract by harvesting more than the department sold. By FY 2006, the months' worth under contract had dropped to just 10 months⁷. But in FY 2008, purchasers began increasing the volume under contract and the average time from sales-to-harvest increased from 10 months to over 16 months by the end of FY 2009. Sales were just slightly more than the pace of removals during FY 2009. The volume under contract remained at 16 months, just slightly less than it was earlier in the decade (FY 2001-2004). (See Figure 3.3 for details.)



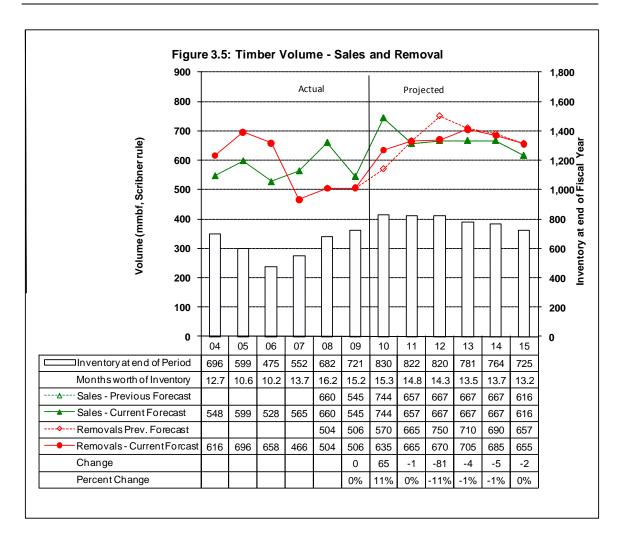
⁷ The "months' worth under contract" is calculated by dividing the current volume under contract by the 24-month moving average (12 months leading and 12 months lagging). It also is the average number of months from the point of sale to harvest.

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To improve our forecasting ability, we attempted to develop a model to forecast the number of months' worth of inventory under contract. We found a strong correlation between the months' worth of inventory and housing starts over the historical period. (See March 2009 Forecast for detail.) The projected housing starts shown in **Figure 2.6** were used to estimate the months' worth of inventory over the Forecast period. And an upper and lower confidence interval was estimated. (See **Figure 3.4** for details.)

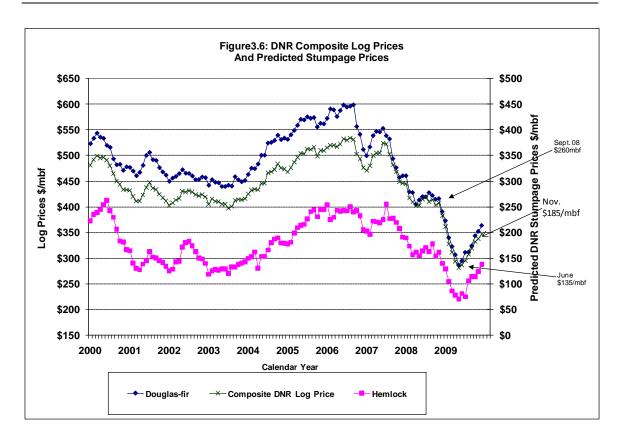


Based on the purchasers survey we have increased the forecast harvest for FY 2010 (July 1, 2009 to June 30, 2010) by 65 mmbf. Most of this harvest was shifted from FY 2012. In addition, we have reduced the forecast harvest for the next biennium by 20 mmbf primarily because of a reduction in forecast housing starts during that period. (See **Figure 3.5** for detail.)

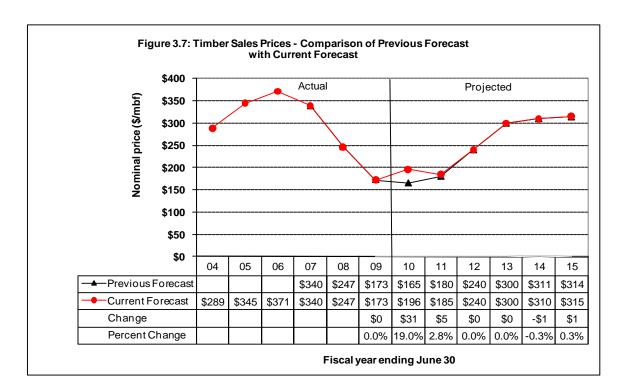


If our forecast holds, the volume under contract will increase to 830 mmbf, or 15.3 months' worth, at the end of FY 2010—up from just 475 mmbf or 10.2 months' worth at the end of FY 2006. The volume under contract is expected to fall to 13.2 months' worth at the end of the forecast period as housing starts recover and log prices improve.

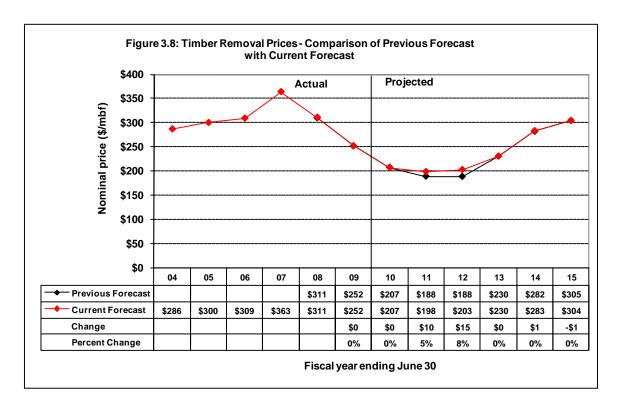
Timber Sales Prices. When the June 2009 Forecast was published, log prices were at \$285/mbf and the corresponding projected DNR stumpage price had fallen to just \$135/mbf. Since then log prices have increased for six months in a row, and now stand at \$345/mbf and the corresponding stumpage price is \$195/mbf, an increase of almost 45 percent. (See **Figure 3.6** for details on DNR composite log prices and projected DNR stumpage prices.)



Now, we expect DNR stumpage prices to average \$196/mbf during all of FY 2010, and \$185 in FY 2011. Market conditions are expected to improve significantly in FY 2012 and FY 2013 because of a bounce-back in the U.S. housing market, and continued growing world demand for lumber. As a result, DNR stumpage prices are forecasted to increase sharply by over \$55/mbf (or 30 percent in FY 2012) over FY 2011 prices. (see **Figure 3.7** for details).

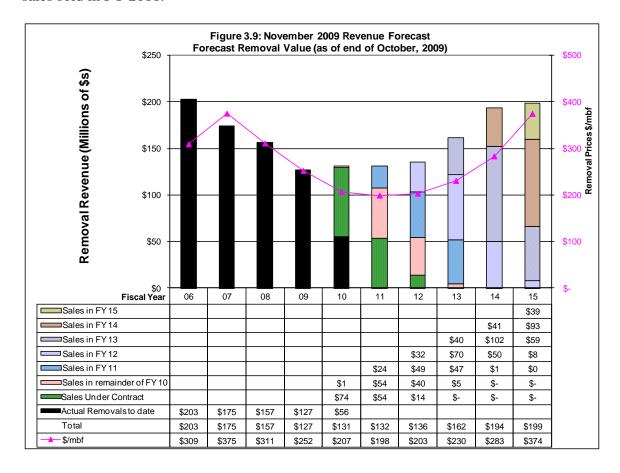


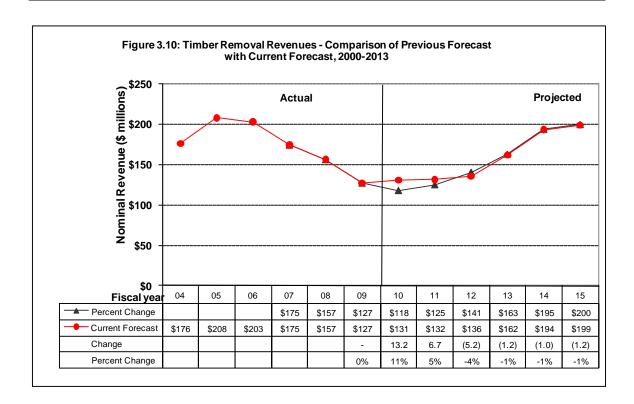
Timber Removal Prices. Removal prices are a function of sales prices and removal timing. They can be thought of as a moving average of previous sales prices, weighted by the volume of sales removed from each previous sales period. The removal volumes used to calculate the weights are shown in **Figure 3.2**. This results in a smoothing out and a lag of removal prices compared to sales prices. For example, sales prices are forecasted to trough or bottom out at \$173/mbf in FY 2009. Removal prices aren't forecasted to trough until two years later in FY 2011 at \$198/mbf, \$21/mbf higher than the bottom for sales prices.



Forecast removal prices in FY 2011 are up by \$10/mbf or about 5 percent from that forecast in September due to the high sales prices in FY 2010. Forecast average removal prices in FY 2012 are up \$15/mbf, or 8 percent, reflecting the increase in Forecast sales prices in FY 2010 and FY 2011 (see **Figure 3.8** for details).

Timber Removal Revenues. Figure 3.9 shows removal revenues by the dates the timber was sold ('under contract' is already sold) and the average removal price for that fiscal year. Over 70 percent of the forecast harvest value this biennium (FY 2010 and FY 2011) will come from the volume harvested before or under contract at the end of October. Twenty-one percent of the forecast harvest value is forecasted to come from sales sold in the remainder of this year (FY 2010); the remaining 9 percent will come from timber sales sold in FY 2011.





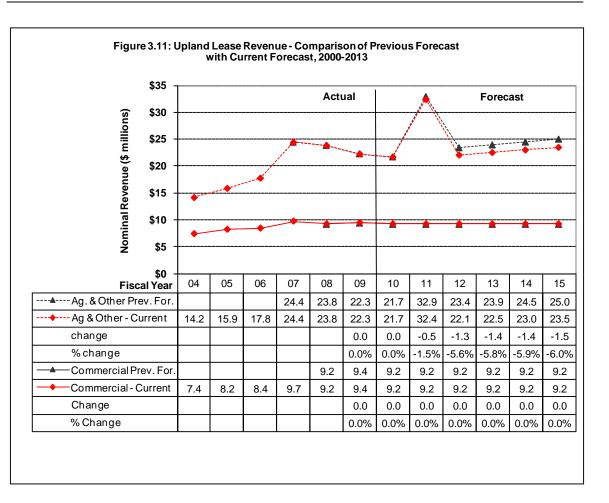
Forecast revenues are up by \$13.2 million (11 percent) and \$6.7 million (5 percent) in FY 2011. In the 2011-13 biennium, revenues are down by \$6.4 million, or 2 percent. See **Figure 3.10** for detail.

Upland lease revenues

Upland lease revenues are generated primarily from leases and the sale of valuable materials, other than timber. In this Forecast, upland lease revenues are divided into two categories:

- 1) **Commercial**—Commercial real estate leases.
- 2) **Agricultural and Other**—Agricultural, special use, mineral and hydrocarbon, rights-of-way, communication sites, special forest products leases, and sale of other valuable materials.

Commercial. For the first quarter of FY 2010, actual collections of commercial lease revenue were \$265,000 or 9 percent more than forecast. While this is a positive indicator it likely is the result of timing of revenues rather than an increase in revenues. The current economic slowdown has increased the probability that we could see some of our commercial building lessees go out of business and default. For now, we are leaving our forecast for future years unchanged, but we believe the risk of downside adjustment to our current forecast is probably greater than the upside risk.

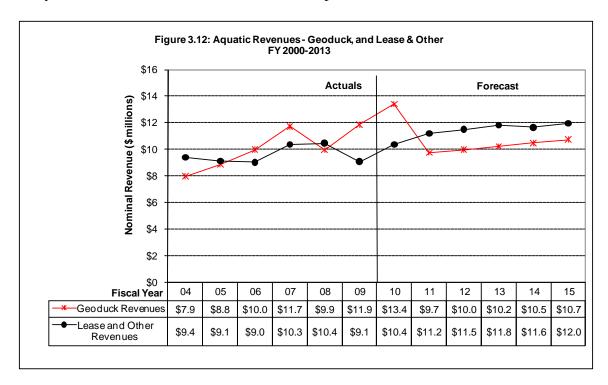


Agricultural and Other. Actual collections during the first quarter of FY 2010 were about \$300,000 above what was forecast in September. This was made up of two parts; a onetime collection for trespass of \$500,000, which was partially offset by an under collection of almost \$200,000 in mineral leases. Because we think there may be more downside potential in mineral and other lease revenue, we are leaving revenues for FY 2010 unchanged from that forecast in September.

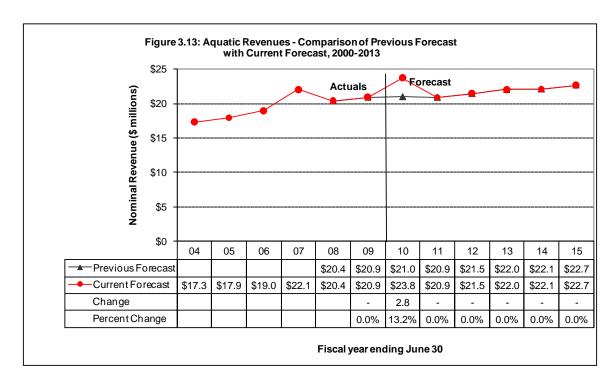
As described in the September 2009 Forecast, revenues in FY 2011are expected to spike because of the onetime sale of communication site equipment in FY 2011 of \$10.0 million. We have reduced revenues in FY 2011 through FY 2015 from September's forecast, because of continued lower mineral lease revenues and reduced lease revenues from the sale of communication sites in FY 2011. (See **Figure 3.11** for details.)

Aquatic revenues

Geoduck Revenues. Since March, the department has received higher-than-forecasted prices for geoducks. At the two geoduck auctions held during this fiscal year, DNR received an average price of \$8.95/lb. This was the highest price the department has ever received. Because of the higher-than-forecast geoduck prices so far this year, we are increasing our projected geoduck revenues in FY 2010 by \$2.8 million. Despite continued higher-than-forecast geoduck prices, we are not changing our forecast of geoduck revenues in FY 2011 and beyond, since geoduck prices are highly volatile and likely will return to more normal levels at some point.



Lease and Other Revenues. Lease and other aquatic revenues year to date through the first quarter of FY 2010 are \$42,000, or 2 percent above the September forecast. Based on this we are not changing our forecast of lease and other aquatic revenues in FY 2010 and beyond.

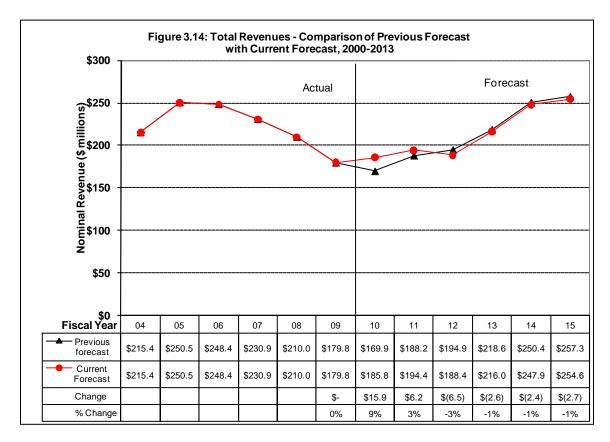


The net result is an increase in forecast revenues from aquatic lands by \$2.8 million in FY 2010 with no change for the remaining years (see **Figure 3.13** for detail).

Total revenues from all sources

Revenues during the 2009-11 biennium are up from previous Forecast by \$22.1 million, or 6.2 percent. This is due primarily to increased timber revenues—up \$19.8 million—and increased geoduck revenues—up \$2.8 million. These increases were offset by a \$0.5 million reduction in other forecast lease revenues.

Revenues during the 2011-13 biennium are down from previous Forecast by \$9.1 million, or 2.2 percent. This reduction is the result of a reduction in timber revenues by \$6.4 million, which was primarily a shift in timber revenues out of the 2011-13 biennium and into the current biennium. In addition, there was a \$2.7 million reduction in upland lease revenues. (See **Figure 3.14** for detail.)



Some caveats

DNR strives to produce the most accurate and objective forecast possible, based on the department's current policy directions and available information. Actual revenues will depend on future policy decisions made by the Legislature and the department, as well as market conditions beyond DNR's control. Listed below are issues that could potentially have a significant impact on future revenues from DNR-managed lands:

- Housing Markets. It has been almost four years since the housing downturn began. We believe the bottom was reached in the first half of this year. But because that bottom is so low, a meaningful recovery of the U.S. housing market will not occur until CY 2011, and, therefore, timber prices will not rise significantly until FY 2012. Our forecast of housing starts may prove optimistic. (See Page 21 of this report for detail.) It is possible that the housing recovery could be pushed back even further by rising interest rates or a slower-than-expected economic recovery. This would likely result in lower timber sales prices than we currently forecast.
- **Timber Sales Volume.** This Forecast is based on the assumption that the department will sell 744 mmbf of regular timber sales in FY 2010, an increase of 55 percent over the FY 2009 level. While sales went well during the first five months of the year, selling 744 mmbf remains an ambitious target.
- **Defaults and Extensions.** Previous Forecasts have included a caveat regarding the possibility of defaults. At this point, most of the contracts of concern (due to their high sales prices relative to current prices) have been resolved. DNR has managed to get through this with minimal damage and we expect no further downward adjustments to the Forecast because of unexpected defaults or extensions. This removes a large downside risk from the Forecast.

These and other future circumstances could have a great impact on future revenues. As events and market conditions develop, DNR will incorporate new information in future Forecast updates.

Distribution of revenues

The distribution of timber revenues by grant are based on:

- The value of timber in the inventory (sales sold but not yet harvested);
- Planned sales for the remainder of FY 2010 through FY 2012 based on planned sales volumes:
- The distribution of the sustainable harvest for FY 2013 through FY 2015.

Timber sales are expected to be harvested on average between 12.5 and 17.5 months after they are sold. (See **Figure 3.5** for details.) Distributions of lease revenues are assumed to be proportional to historic distributions unless otherwise specified.

Since a single timber sale can be worth over \$3 million, dropping, adding, or delaying even one sale can represent a significant shift in revenues to a specific trust fund.

Management Fee Deduction. The 2009-11 budget passed by the Legislature extended the 30 percent RMCA deduction through the end of the 2009-11 biennium. The RMCA deduction is assumed to return to 25 percent in FY 2012. The forecast RMCA revenues at the 30 percent deduction for FY 2012 and beyond show at the top of **Table 3.2**.

Revenue forecast tables

Tables 3.1 and 3.2 on the following pages provide Forecast details. **Table 3.1** focuses on the source of revenues, and **Table 3.2** focuses on the distribution of revenues. Both tables include historical and projected figures.

	Та	ble 3.1 N	Novemb	er 2009 Forec	ast by Sourc	e (In	millions of	dollars)		
Change from September 09										
Forecast										
Timber Sales	FY 08	F)	Y 09	FY 10	FY 11		FY 12	FY 13	FY 14	FY 15
Volume (mmbf)	66		545	744	657		667	667	667	610
Change	-		-	-	-		-	-	-	-
% Change	0	6	0%	0%	0%	6	0%	0%	0%	0'
Price (\$/mbf)	\$24		\$173	\$196	\$18	_	\$240	\$300	\$310	\$31
Change		0	\$0	\$31	\$		\$0	\$0	-\$1	\$
% Change	09		0%	19%	3%		0%	0%	0%	00
Value of Timber Sales (In										
millions of dollars)	\$ 163.0) \$	94.0	\$ 146.2	\$ 121.6	s	160.1	\$ 200.1	\$ 206.5	\$ 194.3
Change	\$ -	\$	-	\$ 23.3	\$ 3.4		-	\$ -	\$ (0.7)	
% Change	0,		0%	19%	3%		0%	0%	0%	0%
,			2,0	. 370	3,		270	370	3,0	0.
Timber Removals	FY 08	F)	Y 09	FY 10	FY 11		FY 12	FY 13	FY 14	FY 15
Volume (mmbf)	50-		506	635	665	;	670	705	685	655
Change	-		-	65	(1		(81)	(4)	(5)	(2
% Change	00	6	0%	11%	0%		-11%	-1%	-1%	09
Price (\$/mbf)	\$31	1	\$252	\$207	\$19	_	\$203	\$230	\$283	\$30
Change		0	\$0	\$0	\$1		\$15	\$0	\$1	-\$
% Change	09		0%	0%	5%		8%	0%	0%	09
Timber Revenue (In										
millions of dollars)	\$ 156.	s s	127.2	\$ 131.2	\$ 131.9	\$	135.7	\$ 162.2	\$ 193.6	\$ 199.2
Change	\$ -	\$	-	\$ 13.2		_	(5.2)			
% Change	00	<u> </u>	0%	11%	5%		-4%	-1%	-1%	-19
, commige			7,0	, ,			.,,	.,,	.,,	.,
Lease Revenue	FY 08	F)	Y 09	FY 10	FY 11		FY 12	FY 13	FY 14	FY 15
Agricultural and Mineral	\$ 23.		22.3	\$ 21.7	\$ 32.4	\$	22.1	\$ 22.5	\$ 23.0	\$ 23.5
Change	\$ -	\$	-	\$ -	\$ (0.5		(1.3)	\$ (1.4)	•	\$ (1.5
% Change	0,		0%	0%	-2%	,	-6%	-6%	-6%	-69
Commercial	\$ 9.:	-	9.4	\$ 9.2	\$ 9.2	_	9.2	\$ 9.2	\$ 9.2	\$ 9.2
Change	\$ -	\$	-	\$ -	\$ -	\$	-	\$ -	\$ -	\$ -
% Change	00		0%	0%	0%		0%	0%	0%	09
Aquatic Revenue	\$ 20.4	1 \$	20.9	\$ 23.8	\$ 20.9	\$	21.5	\$ 22.0	\$ 22.1	\$ 22.7
Change	\$ -	\$	-	\$ 2.8	\$ -	\$	-	\$ -	\$ -	\$ -
% Change	00	6	0%	13%	0%	6	0%	0%	0%	09
Total Lease Revenue	\$ 53.	\$	52.6	\$ 54.7	\$ 62.5	\$	52.7	\$ 53.8	\$ 54.3	\$ 55.4
Change	\$ -	\$	-	\$ 2.8	\$ (0.5) \$	(1.3)	\$ (1.4)		
% Change	00	6	0%	5%	-19	ó	-2%	-2%	-3%	-39
-										
Total All Sources	\$ 210.	\$	179.8	\$ 185.8	\$ 194.4	\$	188.4	\$ 216.0	\$ 247.9	\$ 254.0
				\$ 15.9	\$ 6.2		(6.5)	\$ (2.6)		
	\$ -	1 \$	-	15 IS 9						
Change	\$ - 0°	\$ %	- 0%	\$ 15.9 9%	3%		. ,		. ,	
Change % Change	00	6	0%	·	-		-3%	-1%	-1%	-19
Change	0° included in distri	oution reve	0% enues.	9%	3%		. ,		. ,	

	Table 3.2: Dra	ft No	ovembe	er 2	2009 Fore	eca	st by Fu	nd	(In millio	ns	of do	llar	s)				
Chan	nge from September 09 Forecast																
	30% RMCA thru FY 11						RMCA	АТ	30%===>	\$	29.0	\$	34.8	\$	40.0	\$	40.4
Man	agement Funds		FY 08		FY 09		FY 10		FY 11	F	Y 12	F	Y 13	F	Y 14	F	TY 15
041	RMCA - Upland	\$	32.0	\$	26.5	\$	26.5	\$	29.1	\$	24.2	\$	29.0	\$	33.3	\$	33.7
	Change	\$	-	\$	-	\$	1.7	\$	1.7	\$	0.1	\$	(0.2)	\$	(0.2)	\$	(0.4
	% Change		0%		0%		7%		6%		0%		-1%		0%		-1%
041	RMCA - Aquatic	\$	8.6	\$	8.9	\$	10.3	\$	8.8	\$	9.1	\$	9.3	\$	9.3	\$	9.5
	Change	\$	-	\$	-	\$	1.4	\$	-	\$	-	\$	-	\$	-	\$	-
	% Change		0%		0%		15%		0%		0%		0%		0%		0%
014	FDA	\$	18.6	\$	17.3	\$	18.3	\$	20.0	\$	17.6	\$	19.8	\$	23.5	\$	25.1
	Change	\$	-	\$	-	\$	1.8	\$	(0.0)	\$	(2.0)	\$	(0.7)	\$	(0.6)	\$	(0.3
	% Change		0%		0%		11%		0%		-10%		-3%		-3%		-1%
Tota	Management Funds	\$	59.2	\$	52.7	\$	55.1	\$	57.8	\$		\$	58.1	\$	66.1	\$	68.4
	Change	\$	-	\$	-	\$	4.8	\$	1.6	\$	(2.0)	\$	(0.8)	\$	(0.8)	\$	(0.7
	% Change		0%		0%		10%		3%		-4%		-1%		-1%		-1%
	ent Funds		FY 08		FY 09		FY 10		FY 11		Y 12	F	Y 13		Y 14	F	Y 15
113	Common School Construction	\$	56.6	\$	41.5	\$	41.8	\$	49.0	\$	52.2	\$	61.4	\$	69.9	\$	70.4
	Change	\$	-	\$	-	\$	2.6	\$	5.1	\$	3.1	\$	0.9	\$	0.9	\$	(0.8)
	% Change		0%		0%		7%		12%		6%		1%		1%		-1%
999	Forest Board Counties	\$	52.5	\$	48.6	\$	48.6	\$	49.0	\$	46.4	\$	51.4	\$	61.0	\$	63.6
	Change	\$	-	\$	-	\$	4.5	\$	(0.4)	\$	(5.0)	\$	(1.2)	\$	(1.1)	\$	(0.6
	% Change		0%		0%		10%		-1%		-10%		-2%		-2%		-1%
001	General Fund	\$	3.0	\$	1.4	\$	2.5	\$	3.8	\$	2.9	\$	2.7	\$	3.2	\$	3.4
	Change	\$	-	\$	-	\$	0.7	\$	0.8	\$	0.1	\$	(0.2)	\$	(0.2)	\$	(0.1
	% Change		0%		0%		42%		25%		4%		-6%		-6%		-2%
348	University Bond Retirement	\$	2.3	\$	3.4	\$	1.9	\$	0.7	\$	0.8	\$	1.6	\$	1.9	\$	2.2
	Change	\$	-	\$	-	\$	0.4	\$	(0.3)	\$	(0.1)	\$	(0.1)	\$	(0.1)	\$	(0.0)
	% Change		0%		0%		27%	_	-28%		-6%		-4%		-4%		-2%
347	WSU Bond Retirement	\$	1.2	\$	1.6	\$	1.1	\$	1.2	\$	1.2	\$	1.2	\$	1.3	\$	1.3
	Change	\$	-	\$	-	\$	-	\$	(0.0)	\$	(0.1)	\$	(0.1)	\$	(0.1)	\$	(0.1
	% Change		0%		0%		0%		-2%		-6%		-6%		-6%		-6%
042	CEP&RI	\$	3.8	\$	3.8	\$	4.7	\$	4.3	\$	4.4	\$	5.9	\$	6.9	\$	7.5
	Change	\$	-	\$	-	\$	(0.7)	\$	(1.5)	\$	(1.9)	\$	(0.8)	\$	(0.7)	\$	(0.2
	% Change	•	0%		0%	_	-12%		-25%	•	-31%	_	-12%	_	-10%	_	-3%
036	Capitol Building Construction	\$	5.2	\$	5.7	\$	6.8	\$	6.2		6.4		7.4		8.8	\$	8.6
	Change	\$	-	\$	-	\$	0.8	\$	(0.3)	\$	(0.9)	\$	(0.1)	\$	(0.1)	\$	(0.1
004/6	% Change	Φ.	0%	Φ.	0%	Φ.	13%	Φ.	-5%	Φ.	-13%	Φ.	-2%	•	-1%	Φ.	-1%
061/3	3. Normal (CWU, EWU, WWU, TESC)		0.1	\$	0.1	\$	0.1		0.1	\$		\$	0.1	\$	0.1	\$	0.1
	Change	\$	- 0%	\$	- 00/	\$	- 00/	\$	(0.0)	\$	(0.0)	Ф	(0.0)	\$	(0.0)	Ф	(0.0)
O41-	% Change	¢.		.	0%	ė	0%	Φ.	-2%	¢.	-6%	Φ	-6%	6	-6%	Φ	-6%
Otne	r Funds	\$	0.2	\$	0.4	\$	0.1	\$	0.0	\$	0.0		0.3	\$	0.3		0.5
	Change	\$	- 0%	\$	- 0%	\$	0.0 10%	\$	(0.1) -98%	Ф	(0.2) -100%	Ф	(0.1) -31%	Ф	(0.1) -27%	Ф	(0.0 -5%
T	% Change	•								•		<u></u>		*			
lota	Change	\$	125.0		106.5	\$	107.6		114.4	\$	114.3		132.0		153.3		
	Change	\$	-	\$	-	\$	8.3	\$	3.3	\$	(5.0)	\$	(1.7)	\$	(1.6)	\$	(1.9
	% Change		0%	I	0%	•	8%		3%		-4%		-1%	1	-1%		-1%

	Table 3.2(Contin	uec	d): Nove	mb	er 2009 F	or	ecast by	Fı	und (In m	illic	ons of	do	llars)				
			,				,		(,				
C	hange from September 09 Forecast																
	30% RMCA thru FY 11																
Aqu	atic lands Enhancement Account		FY 08		FY 09		FY 10		FY 11	F	FY 12	F	Y 13	F	Y 14	F١	Y 15
02R		\$	11.7	\$	12.0	\$	13.5	\$	12.1	\$	12.4	\$	12.7	\$	12.8	\$	13.2
	Change	\$	-	\$	-	\$	1.4	\$	-	\$	-	\$	-	\$	-	\$	-
	% Change		0%		0%		11%		0%		0%		0%		0%		0%
Perr	nanent Funds		FY 08		FY 09		FY 10		FY 11	F	-Y 12	F	Y 13	F	Y 14	F۱	Y 15
601	Agricultural College Permanent	\$	4.3	\$	2.9	\$	3.6	\$	2.8	\$	3.0	\$	3.5	\$	4.2	\$	4.0
	Change	\$	-	\$	-	\$	0.5	\$	0.1	\$	0.2	\$	0.3	\$	0.3	\$	0.0
	% Change		0%		0%		15%		4%		8%		8%		8%		1%
604	Normal School Permanent	\$	3.1	\$	2.5	\$	2.6	\$	2.5	\$	2.6	\$	2.5	\$	3.0	\$	3.1
	Change	\$	-	\$	-	\$	0.6	\$	0.8	\$	0.5	\$	(0.2)	\$	(0.2)	\$	(0.1
	% Change		0%		0%		29%		43%		23%		-7%		-7%		-2%
605	Common School Permanent	\$	0.2	\$	0.3	\$	0.4	\$	0.6	\$	0.4	\$	0.4	\$	0.4	\$	0.4
	Change	\$	-	\$	-	\$	-	\$	(0.0)	\$	(0.0)	\$	(0.0)	\$	(0.0)	\$	(0.0)
	% Change		0%		0%		0%		-2%		-6%		-6%		-6%		-6%
606	Scientific Permanent	\$	6.0	\$	2.8	\$	2.9	\$	3.7	\$	4.4	\$	6.3	\$	7.6	\$	7.6
	Change	\$	-	\$	-	\$	0.2	\$	0.4	\$	(0.3)	\$	(0.2)	\$	(0.2)	\$	(0.1
	% Change		0%		0%		7%		12%		-6%		-3%		-2%		-1%
607	University Permanent	\$	0.5	\$	0.1	\$	0.2	\$	0.4	\$	0.4	\$	0.4	\$	0.5	\$	0.3
	Change	\$	-	\$	-	\$	0.1	\$	0.1	\$	0.0	\$	0.1	\$	0.1	\$	0.0
	% Change		0%		0%		397%		16%		9%		30%		28%		4%
Tota	Permanent Funds	\$	14.1	\$	8.6	\$	9.7	\$	10.1		10.8	\$	13.2	\$		\$	15.5
	Change	\$	-	\$	-	\$	1.4	\$	1.3	\$	0.4	\$	(0.0)	\$	(0.0)	\$	(0.1
	% Change		0%		0%		17%		15%		4%		0%		0%		-1%
Tota	I All Funds		FY 08		FY 09		FY 10		FY 11	F	FY 12	F	Y 13	F	Y 14	F\	Y 15
Tota	l de la companya de	\$	210.0	\$	179.8	\$	185.8	\$	194.4	\$	188.4	\$	216.0	\$	247.9	\$ 2	254.6
	Change	\$	-	\$	-	\$	15.9	\$	6.2	\$	(6.5)	\$	(2.6)	\$	(2.4)	\$	(2.7
	% Change		0%		0%		9%		3%		-3%		-1%		-1%		-1%
Note	Trust land transfer is not included in	distri	bution reve	nue	es.												
	This table excludes interest and Lan-	d Bar	nk transact	ion	s, fire asses	ssm	ents, permi	ts,	and fees.								
	Totals may not add due to rounding.						•	ĺ									